REMARKS

Claims 1-16 and 19-20 are pending in the application. Claims 1, 11, 14, 19, and 20 have been amended herewith. Favorable reconsideration of the application, as amended, is respectfully requested.

I. REJECTIONS OF CLAIMS 1-16, AND 19-20 UNDER 35 U.S.C. §103

Claims 1-16, and 19-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior art (AAP) and U.S. Patent No. 5,751,723 ("Vanden"). These claims are believed to be allowable for at least the following reasons.

The inventions defined in independent claims 1, 11, 14, 19, and 20 relate to a non-conventional use of a field in each payload block of an HDSL frame format which is conventionally used for enabling a feature corresponding to T1 or E1. Various embodiments of the invention utilize the field for transmitting a portion of the payload data.

Independent claims 1, 11, 14, 19, and 20 have been amended to further clarify pertinent aspects of the invention. Specifically, independent claims 1, 11, 14, 19, and 20 require employing the field in every frame for transmission of a portion of the payload data. Support for the claim amendments is found generally at page 5, line 36 - page 6, line 4 of the present specification referring to FIG. 3.

It is respectfully submitted that the claim amendments raise no new issues and would simplify issues for appeal. The material added by amendment was inherently present in the originally submitted claims. Thus, these amendments are not believed to narrow the claim scope as compared to the previous version of claims submitted on November 25, 2003, or raise new issues which would require further consideration and/or search.

In the Office Action dated October 6, 2003, the Vanden patent was cited as describing unused or vacant bits used for extra data transmission. However, the Vanden patent fails to teach or suggest the above-identified claimed aspect of the invention, i.e., employing the field in every frame for transmission of a portion of the payload data as discussed below.

The Vanden system receives various types of packets. In order to use unused bits, the Vanden system must first determine a type of a packet on the fly, thereby creating unused bit catalog 125. See, Vanden, column 2, line 55 - column 3, line 8. If the system determines that the packet has no vacant or unused bits, the system does not add any additional data to the packet. In other words, the Vanden system does not perform steps 320, 325, and 330 in Fig. 3 for every frame. Whether these steps are actually performed depends on the determination at step 315. See, Vanden, column 5, lines 8-17. Therefore, it is respectfully submitted that the

Vanden system cannot be said to teach or suggest "employing the unused field in every frame for transmission" of extra data as claimed. The determination of a packet type and preparation of the unused bit catalog would necessarily cost the Vanden system delay of data transmission, and complexity of circuitry. Vanden, e.g., column 2, lines 57-59.

By contrast, the claimed invention utilizes an unused field in every frame to transmit a portion of the payload data. Specifically, in one exemplary embodiment of the invention, the data to be transmitted enters framing circuit 308 at a data rate 8 kbps higher (e.g., 776 kbps) than the standard HDSL rate (e.g., 768kHz). Page 5, lines 10-13 of the present specification. Some of the bits in the incoming raw data are directed to the F/Z bit register associated with the framing circuit 308. Then, these bits in the F/Z bit register occupy the same position in the generated data frames as the F/Z bits would have occupied if the data were transmitted according to the T1 or E1 protocol. There is no need to determine the packet type of the incoming data stream as opposed to the Vanden system. This transmission of additional payload data corresponding to the F/Z bits is achieved for every frame by utilizing the flexible programmable features of the framing circuitry chip set. See, page 5, line 26 - page 6, line 4 of the specification.

Since the framing circuit 308 reconstructs data stream by inserting bits stored in the associated F/Z bits into predetermined positions in the data frame for every frame, the embodiments of the invention do not require packet type identification as done in the Vanden system. In other words, the embodiments of the invention are capable of transmitting the payload automatically, without determining the packet type, thereby eliminating delay related to the packet type identification as compared to the Vanden system.

In view of the foregoing, the Vanden patent cannot be said to remedy the teachings of AAP. Therefore, the inventions of independent claims 1, 11, 14, 19, and 20, and their dependent claims are believed to be patentable over the cited art. Withdrawal of the rejections is respectfully requested.

II. CONCLUSION

Applicants believe that all pending claims are in condition for allowance, and respectfully request a Notice of Allowance at an early date. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 510-843-6200, ext. 245.

Respectfully submitted,
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Expires: August 28, 2004

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